

WESMAC

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

October 29, 1992

Office of the Secretary
Federal Communications Commission
Washington, D. C. 20554

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MAIL BRANCH

Dear Sir:

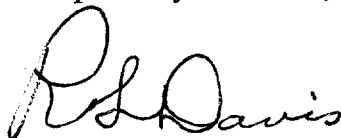
We are pleased to enclose an original and nine copies of our comments in response to F. O. Docket No. 92-206. Please arrange for each Commissioner to receive a personal copy of our comments.

We have commented extensively on the proposed privatization of of FCC commercial radio operator examinations, and trust that these comments will be favorably received.

We saw no need to comment on the "housekeeping changes" which are included in this Docket, and accordingly do not address those issues in our response.

If you have questions or require clarification of our comments, please call me at 1-800-WESMAC-1.

Respectfully submitted,



Richard L. Davis, President
WESMAC
/bmg

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FEDERAL COMMUNICATIONS COMMISSION
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MAIL BRANCH

COMMENTS

In response to F. O. Docket No. 92-206

Submitted by:

WESMAC
3926 Bledsoe Avenue
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OCT 30 1992

1.0 GENERAL

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

1.1 WESMAC is a training organization, and for the past 10 years has performed on-the-job employment and on-the-job training and evaluation of technicians in the electronics industry. We perform these activities throughout the State of California, and occasionally in Arizona. On several occasions WESMAC has presented in-plant and off-site theory courses which prepare technicians for the FCC General Radiotelephone Operator License. Biographies of the principals who will be responsible for WESMAC's participation in the proposed privatization of the FCC examination activities are in Section 9.0 of these Comments.

1.2 In August, 1992 WESMAC wrote to the Radio Operator Branch of the FCC to explore the possibility of performing commercial radio license examinations. That letter included a general description of how the examinations would be administered, and described the benefits to the FCC of appointing an independent organization to conduct the examinations and perform the record keeping associated with this activity.

1.3 In September, 1992, WESMAC received FO Docket No. 92-206, which addressed the same subject, and requesting detailed comments on how to proceed with privatization of the examination procedure, if the Commission elects to do this.

1.4 The following comments are intended to be a complete response from WESMAC regarding privatization of the examination procedure; a timetable for implementation of this activity is included in Section 8.0.

2.0 CRITERIA FOR SELECTION OF EXAMINING ENTITIES

2.1 The examining entity (or entities) should satisfy the Commission that they have the technical ability, experience, personnel, financial resources and administrative ability to conduct testing in their assigned jurisdiction in an efficient, secure and professional manner. These qualities are difficult to determine with certainty; a combination of written proposals and interviews should form the basis for initial selection; but this method is less than perfect, and entails some risk.

2.2 In addition to the above qualifications, the examining entity (or entities) must demonstrate their willingness and ability to provide improved testing opportunities, through increased examination frequency and establishment of additional test sites.

2.3 The selection of a single entity to conduct examinations nationwide and in Puerto Rico seems most attractive to the Commission, because it should ensure uniformity and reduce the burden of supervision and control by the Commission; but this option also contains **the most risk**, in the event that the selected entity does not perform well in scheduling simultaneous examinations for thousands of applicants in dozens of cities. The possibility of large-scale disorder, resulting from inadequate planning and administration, makes this option too risky for the initial move to privatization.

2.4 At the other extreme, the appointment of 25 to 50 separate entities, each in different cities, will not sufficiently reduce the examination burden of the Commission, because of the supervision, coordination and control required to ensure uniformity.

2.5 WESMAC recommends that the Commission **initially** establish (perhaps) six geographical regions, with a separate examining entity responsible for each region. This structure should provide the best combination of risk and supervisory burden; in fact, the amount of supervision required for this arrangement should be minimal, as we shall describe in Sections 4.0 and 7.0.

2.6 It is anticipated that the structure described in Section 2.5 will contain some organizations which perform well, and others which do not maintain appropriate standards. The Commission can evaluate the performance of the individual entities and eliminate the weak performers, assign their regions to the better entities, and in this manner, move safely toward the ultimate goal of a single examining entity.

3.0 REGULATION OF EXAMINING ENTITIES

3.1 Whatever the structure of the proposed privatization, the Commission should retain the responsibility for establishing broad general requirements and constraints. These items include (but are not necessarily limited to) the following subjects:

- 3.1.1 The types of licenses requiring examinations
- 3.1.2 The broad structure of the examinations (written, operative or both)
- 3.1.3 The **minimum** frequency at which the examinations are scheduled
- 3.1.4 The quantity and types of records which the entities shall maintain, and the length of time which they must be kept.
- 3.1.5 The fair and reasonable fees which the examining entities may charge for examinations.

3.2 In addition to these items, the Commission may find it necessary to ensure that the examinations are uniform in difficulty, topics covered, and length; but if the structure proposed in Section 2.5 is adopted, uniformity should be achieved with minimal participation of the Commission.

3.3 The Commission will also find it necessary to monitor situations which may lead to conflict-of-interest or other compromising of test materials. WESMAC suggests that the Commission consider the following methods:

- 3.3.1 Unannounced visitation and inspection of conditions at randomly selected test sites.
- 3.3.2 Registration of an FCC employee for examination at selected test sites without the knowledge of the examining entity.

3.4 The Commission should require that the examining entities submit for approval a plan which will ensure unbiased scoring of examinations; and the utilization of these approved plans should be verified during the visitations described in Section 3.3.1.

3.5 WESMAC proposes to use a double-blind system at its examining sites, wherein the person issuing the test materials has no control over which test the applicant is given, and another examiner (at another location) scores the examination without knowing the name of the applicant.

3.6 With the regional structure recommended by WESMAC in Section 2.4, and the examination design method to be described in Section 7.0, no examining entity will be able to compromise the examination materials in the form of "study guides" or in any other manner.

4.0 SUPERVISION OF EXAMINING ENTITIES BY THE COMMISSION

4.1 In addition to the measures described in Section 3.0, the Commission should require the examining entities to submit reports of the number of applicants tested for the various licenses, test results, and any other information which may be of interest to the Commission.

4.2 The Commission should also require the examining entities to advise all applicants that they have the right to complain to the Commission regarding any examining irregularities, and the examining entities should be required to respond to any such complaints, at the discretion of the Commission.

5.0 EXAMINATION FEES

5.1 Determination of appropriate and reasonable examination fees is not possible until the examining entities are assigned specific jurisdictional regions. Notwithstanding this uncertainty, WESMAC is prepared to maintain the examination fee at \$45 for the first twelve months of operation. This fee anticipates the introduction of additional test sites and an increased frequency of examinations, to be described in Sections 6.0 and 7.0.

5.2 WESMAC also will provide **examinations on demand** in its assigned jurisdiction, and would propose to charge a fee of \$70 for this service.

5.3 From time to time, the examining entities may find it necessary to adjust their examination fee structure. This should be done by petitioning the Commission for permission to change the fees; the examining entity will furnish the Commission with reasonable justification for fee increases.

6.0 EXAMINATION SITE LOCATIONS

6.1 The plan for privatization of operator license examinations should retain the current 25 locations (that is, the 25 cities where examinations are currently administered). In addition, perhaps 20 additional cities should be designated as new examination locations. More specifically, test sites in Alaska, Arizona, Hawaii and Nevada should be established, and other locations throughout the United States should be designated, based on need, as determined by reviewing the demographics of recent license applicants.

6.2 It is understood that the location of examination sites may change from time to time, to accommodate shifts in demand for licenses. It is appropriate for the Commission to approve the elimination of established test sites, and (possibly) the establishment of new sites.

7.0 DESIGN AND ADMINISTRATION OF EXAMINATIONS

7.1 The development of current and relevant examination materials is essential to licensing competent operators who will discharge their duties in a responsible manner. Examinations should be rearranged after every examination period, to eliminate the possibility of any applicant obtaining a license by memorizing previous examination materials. In addition to our comments in Sections 3.5 and 3.6, the following comments will demonstrate that a high order of examination security can be maintained by fragmenting the examination process so that no person or entity will have the ability to compromise the contents of any of the examinations.

7.2 The design of examination materials depends upon the structure chosen by the Commission for privatization. Two possible organizations will be described.

7.3 If the examining entities are assigned to several geographic regions (as described in Section 2.5), the development of examination materials would be performed on a **shared** basis, in the following manner:

7.3.1 Each examination will be divided into several sections, according to subject material.

7.3.2 By agreement of the entities, each examining entity will have the responsibility of generating and maintaining a large variety of test items for one or more section of one or more examinations.

7.3.4 Each examining entity shall revise its assigned examination materials after each examining period, which will provide fresh and current test items at every examination period.

7.3.5 Several versions of the examination section will be prepared by the responsible entity prior to each examination period.

7.3.6 The examination sections shall be delivered to the offices of all other examining entities immediately prior to the examining period.

7.3.7 Each examining entity will collate the appropriate sections into the examination booklets.

7.3.8 The issue of examination booklets and scoring shall be performed by the "double blind" method described in Section 3.5.

7.3.9 All examination material is destroyed by the examining entities at the conclusion of each examining period.

7.4 The method described in Section 7.3 avoids conflict-of-interest in the following ways:

7.4.1 Several unique versions of each examination are used at each examining period.

7.4.2 No examination version is used at two consecutive testing periods.

7.4.3 The examining entities will be unaware of the specific content of any examination until immediately before the examining period.

7.4.4 The double blind examination/scoring process ensures objectivity at the examination site.

7.5 By dividing the task of test item design among the examining entities, the burden of maintaining fresh examination material is shared among the entities, and reduced to a manageable level.

7.6 If the Commission elects to appoint a single examining entity, the responsibility for maintaining fresh and current materials becomes the sole responsibility of that entity. To ensure objectivity, the following process is suggested:

7.6.1 Several versions of each examination are randomly computer-generated from a large pool of test items.

7.6.2 The examination materials are delivered to an independent testing organization **not associated with electronics testing** immediately before each testing period.

7.6.3 The examinations are administered in a secure manner, but are not graded at the examining site.

7.6.4 All examination materials and answer sheets are returned to the examining entity at the conclusion of the examining period.

7.6.5 The examinations are electronically scored by the examining entity.

7.6.6 Test results are immediately mailed to the applicants.

7.7 The process described in 7.6 ensures examination integrity in the following ways:

7.7.1 The examining entity does not administer the examinations and cannot provide improper assistance to the examination applicants.

7.7.2 The organization (or organizations) administering the examinations have no way of compromising the examinations, because they do not score the examinations.

7.8 Several testing organizations are available for administering these examinations in dozens of cities nationwide, in the same way that college entrance examinations are administered. This process will satisfy the Commission's objective of providing frequent examinations at a large number of test sites.

7.9 The examining entity will have the responsibility of monitoring the integrity of the designated testing organizations in the manner described in Section 3.3.

7.10 The arrangement described in Sections 7.6 through 7.9 satisfies the objectives of the Commission, and reduces the burden of regulation and supervision by the Commission to an absolute minimum.

7.11 The arrangement described in Sections 7.6 through 7.9 can be implemented with a minimum of planning and preparation, because it utilizes existing nationwide testing organizations.

7.12 This arrangement also satisfies the Commission's objective of centralized record keeping.

8.0 SUMMARY

8.1 WESMAC is prepared to support any degree of privatization which the Commission may elect to implement. We are a professional organization, not unfamiliar with the standards and practices of the Commission, and are fully aware of the importance of proper licensing as a means of orderly RF spectrum management and compliance with U.S. and international law.

8.2 WESMAC will be prepared to assume commercial radio operator license examinations on the following timetable, depending on the area assigned:

8.2.1 LEVEL 1: Southern California: 30 days after assignment.

8.2.2 LEVEL 2: The State of California: 45 days after assignment.

8.2.3 LEVEL 3: The States of Alaska, Arizona, California, Hawaii, Nevada, Oregon and Washington: 60 days after assignment.

8.2.4 LEVEL 4: The entire United States and Puerto Rico: 60 days after assignment.

8.3 It is anticipated that the Commission may elect other organizational structures not described in the foregoing comments; and in that regard, WESMAC requests the opportunity to comment on its possible role in those scenarios.

9.0 BIOGRAPHIES OF PRINCIPALS

9.1 The following WESMAC personnel will have the primary responsibility for implementing the programs necessary to achieve the Commission's goals for privatization of the commercial radio operator license examinations:

Richard L. Davis

Mr. Davis is an Air Force veteran and has an electrical engineering degree from Syracuse University. He has over 20 years of electronics industry experience and holds the General Radiotelephone Operator's License. He is the President of WESMAC and has 17 years of experience in training and evaluation.

Douglas R. Marston

Mr. Marston has an A.S. degree in electronics technology from El Camino college and over 20 years of experience in the electronics industry. He has operated as a radio amateur with call sign WB6JCD since 1963. He is the Vice president of WESMAC and has 10 years of experience in training and evaluation.

Charles L. Williams

Mr. Williams is a Navy veteran and has an A.S. degree in electronics technology from El Camino College. He holds the General Radiotelephone Operator's License with the Radar Endorsement. He is a Training Specialist at WESMAC and has 4 years of experience in training and evaluation.